

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number
WO 2005/003338 A1

(51) International Patent Classification⁷: **C12N 9/12**,
15/54, 15/82, A01H 5/00, C12Q 1/68

(21) International Application Number:
PCT/DK2004/000478

(22) International Filing Date: 2 July 2004 (02.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PA 2003 01010 3 July 2003 (03.07.2003) DK
60/484,923 3 July 2003 (03.07.2003) US

(71) Applicant (for all designated States except US): **AARHUS
UNIVERSITET** [DK/DK]; Nordre Ringgade 1, DK-8000
Aarhus C (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JENSEN, Jens,**

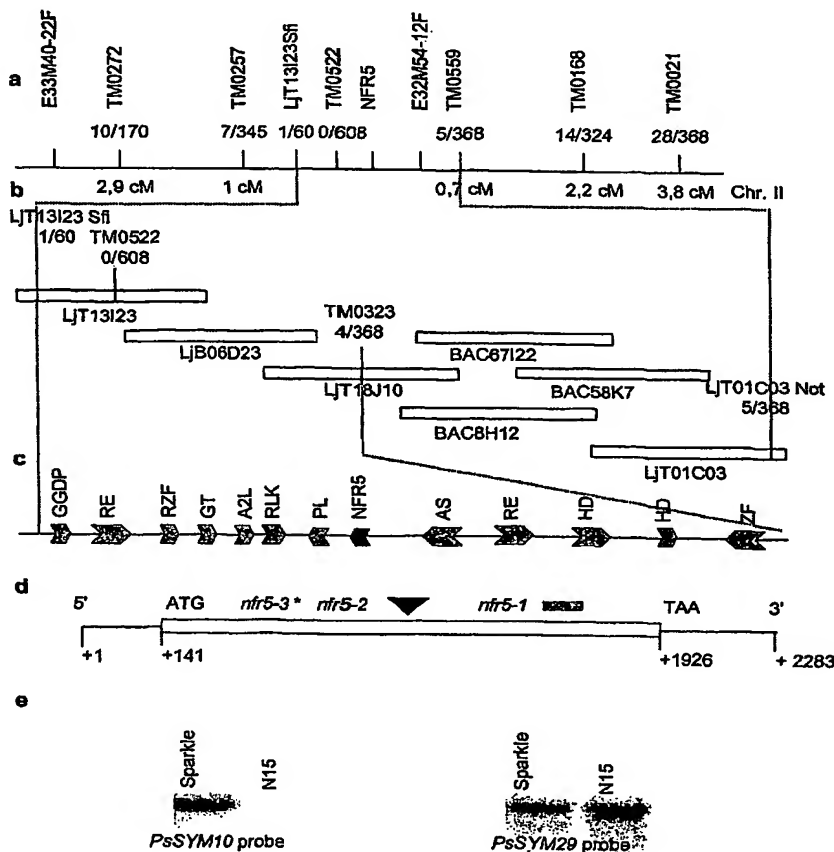
Stougaard [DK/DK]; Råhøj Allé 5, DK-8270 Højbjerg
(DK). **MADSEN, Lene, Heegaard** [DK/DK]; Råhøj Allé
5, DK-8270 Højbjerg (DK). **RADUTOIU, Elena, Simona**
[RO/DK]; Dalvangen 19D, DK-8270 Højbjerg (DK).
MADSEN, Esben, Bjørn [DK/DK]; Kantorparken 28, 1
th., DK-8240 Risskov (DK). **SANDAL, Niels, Nørgaard**
[DK/DK]; Mejlvænget 29, DK-8381 Tilst (DK).

(74) Agent: **ZACCO DENMARK A/S**; Hans Bekkevolds Allé
7, DK-2900 Hellerup (DK).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: **NOD-FACTOR PERCEPTION**



(57) Abstract: The present invention provides a Nod-factor binding element, comprising one or more NFR polypeptides encoded by NFR genes, that are useful for providing non-nodulating plants with Nod-factor binding properties and triggering the endosymbiotic signalling pathway leading to nodulation. Furthermore the invention is useful for breeding for improved nodulation in nodulating legumes.



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.